

III. CLAIM AMENDMENTS



1. (Currently Amended) A method for transferring image information from a camera module to an electronic device, the camera module being integrated in the electronic device as a component of the electronic device, the method comprising the steps of:

forming an image in the camera module by means of an image sensor comprising pixels which convert light to which the pixels are exposed into an analogue signal,

converting said analogue signal into digital image information by analogue-to-digital conversion, and

transferring the digital image information from the camera module to the electronic device via an internal serial connection bus of the electronic device.

2. (Cancelled)

3. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of digital image information to be transferred from the camera module is conducted by adjusting the conversion accuracy of the analogue-to-digital conversion.

4. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of information to be transferred from the camera module is conducted by reducing the resolution of the image.

5. (Previously Presented) A method according to claim 4, wherein reduction of the resolution of the image is conducted by under-sampling the digital image information.

6. (Previously Presented) A method according to claim 4, wherein the resolution of the image is restored in the electronic device by interpolation from the received digital image information.

7. (Currently Amended) A camera module to be used as an integrated ~~camera module for~~ component of an electronic device, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, and an analogue-to-digital converter for conversion of an analogue signal generated by said pixels into digital image information, the camera module further comprising:

a serial connection circuit for transferring digital image information to the electronic device and for receiving control information from the electronic device via an internal serial connection bus of the electronic device.

8. (Cancelled)

9. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by adjusting the conversion accuracy of the analogue-to-digital conversion performed by the analogue-to-digital converter.

10. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by reducing the resolution of the image.

11. (Previously Presented) A camera module according to claim 10, adapted to reduce the resolution of the image by under-sampling the digital image information.

12. (Cancelled)

13. (Currently Amended) A mobile station, comprising a camera module integrated as a component of the mobile station, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, an analogue-to-digital converter for converting an analogue signal generated by the image sensor into digital image information and a serial connection circuit for transferring digital image information formed by the camera module to the mobile station, the mobile station comprising an internal serial connection bus for transferring digital image information from the camera module to the mobile station and for transferring control information from the mobile station to the camera module.

14-15. (Cancelled)

16. (Previously Presented) A mobile station according to claim 13, wherein the internal serial connection bus comprises a serial bus and a control serial bus and that the mobile station is adapted to transfer control information to the

camera module via said control serial bus and to receive digital image information from the camera module in serial form via said serial bus.

17-18. (Cancelled)

19. (Previously Presented) A mobile station according to claim 13, further comprising means for transmitting digital image information, transferred from the camera module to the mobile station, from the mobile station via a wireless link.

20. (Cancelled)

21. (Previously Presented) A method according to claim 45, wherein the camera module is set into viewfinder mode responsive to a control signal received from the electronic device.

22. (Previously Presented) A method according to claim 45, wherein the camera module is set into normal photographic mode responsive to a control signal received from the electronic device.

23. (Previously Presented) A method according to claim 1, wherein the transfer of digital image information from the camera module to the electronic device is started responsive to a control signal received from the electronic device.

24. (Previously Presented) A method according to claim 1, wherein a picture is taken by the camera module responsive to a control signal received from the electronic device.

25. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of digital image information to be transferred from the camera module is conducted by leaving less significant bits of the digital image information untransferred.

26. (Previously Presented) A method according to claim 45, wherein the camera module captures an image with maximum resolution and reduces the quantity of digital image information to be transferred at the stage when the digital image information is transferred to the electronic device.

27. (Previously Presented) A method according to claim 1, wherein the image is displayed on a display of the electronic device.

28. (Previously Presented) A method according to claim 1, wherein the camera module crops a region from an image and transfers the digital image information of the cropped region to the electronic device.

29. (Previously Presented) A method according to claim 28, wherein the electronic device sends information about the region of the image to be cropped to the camera module.

30. (Previously Presented) A method according to claim 1, wherein the electronic device is a mobile station and the method further comprises transmitting digital image information, transferred from the camera module to the mobile station, from the mobile station via a wireless link.

31. (Previously Presented) A camera module according to claim 47, adapted to be set into viewfinder mode responsive to a control signal received from the electronic device.

32. (Previously Presented) A camera module according to claim 47, adapted to be set into normal photographic mode responsive to a control signal received from the electronic device.

33. (Previously Presented) A camera module according to claim 7, adapted to start the transfer of digital image information from the camera module to the electronic device responsive to a control signal received from the electronic device.

34. (Previously Presented) A camera module according to claim 7, adapted to take a picture responsive to a control signal received from the electronic device.

35. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by leaving less significant bits of the digital image information untransferred.

36. (Previously Presented) A camera module according to claim 47, adapted to capture an image with maximum resolution and to reduce the quantity of digital image information to be transferred at the stage when the digital image information is transferred to the electronic device.

37. (Previously Presented) A camera module according to claim 7, adapted to crop a region from an image and to transfer the digital image information of the cropped region to the electronic device.

38 - 43. (Cancelled)

44. (Previously Presented) A method according to claim 1, wherein the digital image information is transferred from the camera module to the electronic device via the internal serial connection bus under control of the electronic device.

45. (Previously Presented) A method according to claim 1, wherein the camera module is adapted to operate in either one of a normal photographic mode and a viewfinder mode, such that when operating in viewfinder mode the camera module reduces the quantity of digital image information to be transferred from the camera module to the electronic device compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

46. (Previously Presented) A camera module according to claim 7, adapted to transfer the digital image information from the

camera module to the electronic device via the internal serial connection bus under control of the electronic device.

47. (Previously Presented) A camera module according to claim 7, adapted to operate in either one of a normal photographic mode and a viewfinder mode and, when operating in viewfinder mode, to reduce the quantity of digital image information to be transferred from the camera module to the electronic device compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

48. (Previously Presented) A mobile station according to claim 13, adapted to control the transfer of digital image information from the camera module to the mobile station via the internal serial connection bus.

49. (Previously Presented) A mobile station according to claim 13, wherein the camera module is adapted to operate in either one of a normal photographic mode and a viewfinder mode and, when operating in viewfinder mode, to reduce the quantity of digital image information to be transferred from the camera module to the mobile station compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

50. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by adjusting the conversion accuracy of the



analogue-to-digital conversion performed by the analogue-to-digital converter.

51. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by reducing the resolution of the image.

52. (Previously Presented) A mobile station according to claim 51, wherein the camera module is adapted to reduce the resolution of the image by under-sampling the digital image information.

53. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to be set into viewfinder mode responsive to a control signal received from the mobile station.

54. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to be set into normal photographic mode responsive to a control signal received from the mobile station.

55. (Previously Presented) A mobile station according to claim 13, wherein the camera module adapted to start the transfer of digital image information responsive to a control signal received from the mobile station.

56. (Previously Presented) A mobile station according to claim 13, wherein the camera module is adapted to take a picture responsive to a control signal received from the mobile station.

57. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by leaving less significant bits of the digital image information untransferred.

58. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to capture an image with maximum resolution and to reduce the quantity of digital image information to be transferred at the stage when the digital image information is transferred to the mobile station.

59. (Previously Presented) A mobile station according to claim 13, wherein the camera module is adapted to crop a region from an image and to transfer the digital image information of the cropped region to the mobile station.

60. (Previously Presented) A mobile station according to claim 59, wherein the mobile terminal is adapted to send information about the region of the image to be cropped to the camera module.

61. (Previously Presented) A mobile station according claim 13, further comprising a display for displaying images produced by the camera module.

62. (New) A method for transferring image information from a camera module to an electronic device, the camera module being a non-removable, integrated component of the electronic device, the method comprising the steps of:

forming an image in the camera module by means of an image sensor comprising pixels which convert light to which the pixels are exposed into an analogue signal,

converting said analogue signal into digital image information by analogue-to-digital conversion, and

transferring the digital image information from the camera module to the electronic device via an internal serial connection bus of the electronic device.

63. (New) A camera module to be used as a non-removable, integrated component of an electronic device, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, and an analogue-to-digital converter for conversion of an analogue signal generated by said pixels into digital image information, the camera module further comprising a serial connection circuit for transferring digital image information to the electronic device and for receiving control information from the electronic device via an internal serial connection bus of the electronic device.

64. (New) A mobile station, comprising a camera module integrated as a non-removable component of the mobile station, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, an analogue-to-digital converter for converting an analogue signal generated by the image sensor into digital image information and a serial

connection circuit for transferring digital image information formed by the camera module to the mobile station, the mobile station comprising an internal serial connection bus for transferring digital image information from the camera module to the mobile station and for transferring control information from the mobile station to the camera module.